REMARKS

The application has been reviewed in light of the Office Action dated February 8, 2007.

Claims 1-31 are pending in this application, with claims 1, 5, 12, 17, 25, and 27 being in

independent form. By the present Amendment, claims 5, 17 and 27 have been amended. It is

submitted that no new matter has been added and no new issues have been raised by the present

Amendment.

Claims 1-31 were rejected under 35 U.S.C. §103(a) as allegedly anticipated by U.S.

Patent Application Publication No. 2007/0152418 (Sinha) in view of U.S. Patent Application

Publication No. 2003/0072284 (Webster). Applicants have carefully considered the Examiner's

comments and the cited art, and respectfully submit independent claims 1, 5, 12, 17, 25, and 27

are patentably distinct from the cited art, for at least the following reasons.

Independent claim 1 relates to a physical layer unit for a wireless local area network

(LAN) system. The physical layer unit includes a receiving processor and an analog-to-digital

(A/D) converter that receives and converts an OFDM analog signal or a DSSS/CCK analog

signal processed by an RF module into a digital signal. The receiving processor interpolates and

demodulates the converted digital signal. **DSS/CCK demodulated signals are interpolated and**

demodulated prior to being output. OFDM demodulated signals are directly demodulated

without interpolation prior to being output.

The Office Action alleges that these features are taught by Sinha. However, this

allegation is not supported by the cited portions of Sinha, anywhere else in Sinha, or in view of

Webster. In independent claim 1, DSS/CKK demodulated signals are interpolated and

demodulated prior to being output while OFDM demodulated signals are directly demodulated,

without interpolation, prior to being output. In Sinha, a first demodulator is used to demodulate OFDM signals and a second demodulator is used to demodulate DSS/CKK signals (see, for example, paragraphs [0009], [0010] and [0032]). The Office Action equates the "interpolation" of claim 1 with the "sample rate conversion" of Sinha. Even assuming arguendo that this analogy is correct, Sinha shows rate conversion being applied *only* to the CCK/DSSS signal and nowhere is rate conversion applied to an <u>OFDM</u> signal (see, for example, Figs. 2, 3 & 5). Meanwhile, in independent claim 1, DSS/CKK demodulated signals are interpolated and <u>OFDM</u> demodulated signals are directly demodulated, without interpolation. Accordingly, Sinha fails to teach or suggest the claimed subject matter of independent claim 1 and, if the Office Action's assumptions are correct, actually teaches away from the claimed subject matter of independent claim 1.

Webster does not teach or suggest these features, nor does the Office Action allege that it does. Accordingly, independent claim 1, and dependent claims 2-4, are patentably distinct from the cited art.

Similarly, independent claim 12 holds that only signals to be output as DSS/CCK demodulation signals are to be interpolated while signals to be output as OFDM demodulation signals are directly demodulated without interpolation. Accordingly, independent claim 12 and dependent claims 13-16 are patentably distinct from the cited art for at least similar reasons.

Similarly, independent claim 25 holds that interpolated signals are demodulated as DSS/CCK demodulation signals while converted signals are directly demodulated and outputted as OFDM demodulation signals. Accordingly, independent claim 25 and dependent claim 26 are patentably distinct from the cited art for at least similar reasons.

Similarly, independent claims 5, 17 and 27, as amended, hold that DSSS/CCK demodulation signals are outputted after interpolation and demodulation while OFDM demodulation signals are output after demodulation, and thus, without interpolation. Accordingly, independent claims 5, 17 and 27 and their respective dependent claims 6-11, 18-24 and 27-31 are patentably distinct from the cited art for at least similar reasons.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.
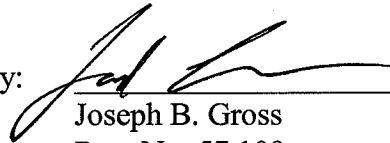
Favorable reconsideration is earnestly solicited.

Respectfully submitted,

Dated: 6/1/2007

By:
Joseph B. Gross
Reg. No. 57,109
Attorney for Applicants

F. CHAU & ASSOCIATES, LLC
130 Woodbury Road
Woodbury, NY 11797
Telephone   (516) 692-8888
Facsimile   (516) 692-8889